

**Engineering Programs
CSU, UC & WUE**

Field	Sample Job Description	Job Forecast (between 2021-2031)	Salary Range	Salary Average	Options for BS in California	WUE Options for BS
Aerospace	<p>Aerospace engineers design, test, and supervise the manufacture of aircraft, spacecraft, and missiles. Those who work with aircraft are called aeronautical engineers, and those working specifically with spacecraft are astronautical engineers.</p> <p>https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Aerospace%20Engineers&onetcode=17-2011.00&location=UNITED%20STATES</p>	6%	\$77,440- \$168,370	\$122,270	CPP CPSLO CSULB SDSU SJSU UCB UCD UCI UCLA UCSD	New Mexico State University University of Colorado, Colorado Springs South Dakota State University: (Mechanical Engineering- Aerospace Engineering Specialization)
Agricultural	<p>Agricultural engineers—also known as biological and agricultural engineers—work on a variety of activities. These activities range from aquaculture (raising food, such as fish, that thrive in water) to land farming to forestry; from developing biofuels to improving conservation; from planning animal environments to finding better ways to process food.</p> <p>https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Agricultural%20Engineers&onetcode=17-2021.00&location=UNITED%20STATES</p>	1%	\$55,810- \$127,030	\$82,640	CPSLO CSUB: (B.S. Engineering Sciences w/Emphasis in Biosystems and Agricultural Engineering)	North Dakota State University South Dakota State University
Biological	<p>Biomedical engineers design instruments, devices, and software used in healthcare; develop new procedures using knowledge from many technical sources; or conduct research needed to solve clinical problems. They frequently work in research and development or quality assurance.</p> <p>https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Bioengineers%20and%20Biomedical%20Engineers&onetcode=17-2031.00&location=UNITED%20STATES</p>	10%	\$60,680- \$154,750	\$97,410	CPSLO CSULB SJSU UCB UCD UCI UCM Biochemistry: UCD Bioengineering: UCB, UCLA, UCM, UCR, UCSD Biological Systems: UCD Biomedical: UCD, UCI Biomolecular: UCSC Biotech: UCSC	Colorado State University University of Colorado Denver Montana State University Bozeman Oregon State University University of Nevada Reno University of Utah Utah State University Washington State University
Chemical	<p>Chemical engineers work in manufacturing, pharmaceuticals, healthcare, design and construction, pulp and paper, petrochemicals, food processing, specialty chemicals, polymers, biotechnology, and environmental health and safety industries, among others.</p> <p>https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Chemical%20Engineers&onetcode=17-2041.00&location=UNITED%20STATES</p>	14%	\$62,730- \$187,430	\$105,550	CPP CSULB SJSU UCB UCD UCI UCLA UCR UCSB UCSD	Colorado State University Montana State University Bozeman New Mexico Institute of Mining and Technology New Mexico State University Oregon State University South Dakota School of Mining University of Idaho University of Nevada, Reno University of New Mexico University of North Dakota University of Utah University of Wyoming Utah Valley University Washington State University

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Civil	Civil engineers design and supervise the construction of roads, buildings, airports, tunnels, dams, bridges, and water supply and sewage systems. https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Civil%20Engineers&onetcode=17-2051.00&location=UNITED%20STATES	7%	\$60,550- \$133,320	\$88,050	CPP CPSLO CSUC CSUEB CSUFRES CSUFULL CSULA CSULB CSUN CSUSAC SDSU SFSU SJSU UCB UCD UCI UCM UCLA	Boise State University Colorado Mesa University Colorado State University Idaho State University University of Alaska Anchorage University of Alaska Fairbanks Northern Arizona University University of Colorado Denver University of Hawaii at Manoa University of Idaho Montana State University, Bozeman Montana Tech +20
Computer	Computer engineers (or computer hardware engineers) research, design, develop, test, and oversee the manufacture and installation of computer hardware, including computer chips, circuit boards, computer systems, and related equipment such as keyboards, routers, and printers. https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Computer%20Hardware%20Engineers&onetcode=17206100&location=UNITED%20STATES	5%	\$77,100- \$208,000	\$128,170	CPP CPSLO CSUB CSUC CSUEB CSUFRES CSUFULL CSULB CSUN, CSUSAC CSUSB SDSU SFSU SJSU UCD UCI UCLA UCR UCSB UCSC UCSD Computer Science & Engineering: UCLA, UCM	Boise State University Colorado State University Fort Lewis College Metropolitan State University of Denver Montana State University Bozeman Northern Arizona University North Dakota State University Portland State University South Dakota School of Mining and Technology +16
Construction	Construction engineers are responsible for overseeing the construction of airports, malls, schools, manufacturing facilities, highways, high-rise structures, water treatment plants and much more.	7% (shares similar average to civil engineers)	\$56,000- \$109,000 *	\$71,295*	CPP SDSU Construction Mgmt: CSUC CSUEB CSUFRES CSULB CSUN CSUSAC	Central Washington University Montana State University, Bozeman North Dakota State University Oregon State University University of Colorado Denver University of New Mexico Washington State University

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Electrical	<p>Electrical engineers design, develop, test, and supervise the manufacture of electrical equipment. Some of this equipment includes electric motors; machinery controls, lighting, and wiring in buildings; radar and navigation systems; communications systems; and power generation, control, and transmission devices used by electric utilities.</p> <p>https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Electrical%20Engineers&location=UNITED%20STATES&onetcode=17-2071.00</p>	3%	\$62,360- \$162,930	\$100,420	CPP CPSLO, CSUB CSUFRES CSUFULL CSULA CSULB CSUN CSUSM SDSU SFSU SISU, Sonoma State UCB UCD UCI UCM UCLA UCR UCSB UCSC UCSD	Boise State University Colorado State University Idaho State University Montana State University Bozeman Montana Tech Northern Arizona University Utah Tech University University of Alaska Anchorage University of Alaska Fairbanks University of Colorado, Denver University of Hawaii at Manoa University of Idaho Western Washington University +23
Environmental	<p>Environmental engineers use the principles of engineering, soil science, biology, and chemistry to develop solutions to environmental problems. They work to improve recycling, waste disposal, public health, and water and air pollution control. They also address global issues, such as unsafe drinking water, climate change, and environmental sustainability.</p> <p>https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Environmental%20Engineers&onetcode=17-2081.00&location=UNITED%20STATES</p>	4%	\$59,820- \$153,200	\$96,820	CPP CPSLO CSULB HSU SDSU UCB UCD UCI UCM UCR UCSD	Arizona State University/ Polytechnic Campus Northern Arizona University Metropolitan State University of Denver Colorado State University Montana State University Bozeman Montana Tech University of Nevada Reno New Mexico Institute of Mining and Technology North Dakota State University Oregon State University Portland State University Utah State University
Industrial	<p>Industrial engineers find ways to eliminate wastefulness in production processes. They devise efficient systems that integrate workers, machines, materials, information, and energy to make a product or provide a service.</p> <p>https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Industrial%20Engineers&onetcode=17-2112.00&location=UNITED%20STATES</p>	10%	\$60,850- \$129,620	\$95,300	CPP CPSLO CSUEB SISU UCB	Colorado State University Pueblo Montana State University Bozeman North Dakota State University Oregon State University New Mexico State University South Dakota School of Mining and Technology
Marine	<p>Marine engineers and naval architects design, build, and maintain ships, from aircraft carriers to submarines and from sailboats to tankers. Marine engineers are also known as marine design engineers or marine mechanical engineer and are responsible for the internal systems of a ship, such as the propulsion, electrical, refrigeration, and steering systems. Naval architects are responsible for the ship design, including the form, structure, and stability of hulls.</p>	4%	\$56,550- \$151,880	\$93,370	CSUMA	n/a

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	https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Marine%20Engineers%20and%20Naval%20Architects&onetcode=17-2121.00&location=UNITED%20STATES					
Materials	<p>Materials engineers develop, process, and test materials used to create a range of products, from computer chips and aircraft wings to golf clubs and biomedical devices. They study the properties and structures of metals, ceramics, plastics, composites, nanomaterials (extremely small substances), and other substances in order to create new materials that meet certain mechanical, electrical, and chemical requirements. They also help select materials for specific products and develop new ways to use existing materials.</p> <p>https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Materials%20Engineers&onetcode=17-2131.00&location=UNITED%20STATES</p>	6%	\$60,580- \$161,080	\$98,300	CPP CSULA CPSLO SJSU UCB UCD UCI UCLA UCM UCR UCSD	Boise State University New Mexico Institute Mining Technology University of Idaho University of Nevada, Reno University of Utah Washington State University
Mechanical	<p>Mechanical engineers use the principles of energy, materials, and mechanics to design and manufacture machines and devices of all types. They create the processes and systems that drive technology and industry.</p> <p>https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Mechanical%20Engineers&onetcode=17-2141.00&location=UNITED%20STATES</p>	2%	\$60,750- \$136,210	\$95,300	CPHUMBOLDT CPP CPSLO, CSUC CSUFRES CSUFULL CSULA CSULB CSUMA CSUN CSUS SDSU SFSU SJSU UCB UCD UCI UCLA UCM UCR UCSB UCSD	Northern Arizona University Boise State University Colorado Mesa University Colorado State University Idaho State University University of Hawaii at Manoa Portland State University +34 more
Mining	<p>Mining and geological engineers design mines for the safe and efficient removal of minerals such as coal and metals for manufacturing and utilities.</p> <p>https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Mining%20and%20Geological%20Engineers,%20Including%20Mining%20Safety%20Engineers&onetcode=17215100&location=UNITED%20STATES</p>	2%	\$48,690- \$162,720	\$97,090	n/a	Montana Tech New Mexico Institute of Mining and Technology South Dakota School of Mining and Technology University of Arizona University of Alaska Fairbanks University of Nevada Reno University of Utah

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Nuclear	Nuclear engineers research and develop the processes, instruments, and systems used to derive benefits from nuclear energy and radiation. Many of these engineers find industrial and medical uses for radioactive materials—for example, in equipment used in medical diagnosis and treatment. Many others specialize in the development of nuclear power sources for ships or spacecraft. https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Nuclear%20Engineers&onetcode=17-2161.00&location=UNITED%20STATES	-11% (Decline)	\$75,460- \$169,000	\$120,380	UCB	Idaho State University University of New Mexico Oregon State University
Petroleum	Petroleum engineers design and develop methods for extracting oil and gas from deposits below the earth's surface. Petroleum engineers also find new ways to extract oil and gas from older wells. https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Petroleum%20Engineers&onetcode=17-2171.00&location=UNITED%20STATES	8%	\$78,390- \$208,000	\$130,850	CSUB	Montana Tech New Mexico Institute of Mining and Technology University of Alaska Fairbanks University of North Dakota University of Wyoming
Software	Software Engineers (developers) are the creative minds behind computer programs. Some develop the applications that allow people to do specific tasks on a computer or another device. Others develop the underlying systems that run the devices or that control networks. https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Software%20Developers&onetcode=15-1252.00&location=UNITED%20STATES	2%	\$64,470- \$168,570	\$120,730	CSUFULL CSUN CPHUMBOLDT CPSLO CSUMB CSUS CSUSM SJSU UCI	Northern Arizona University Arizona State University / Polytechnic Campus University of Northern Colorado Montana Technological University Valley City State University Snow College Utah Valley University Utah Tech University Washington State University Everett Washington State University
Structural	Manages and directs staff at project site. Performs engineering duties; plans, designs and oversees the construction and maintenance of buildings, bridges, and other structures. Researches and analyzes maps, blueprints, photos, charts, and other data to plan projects. Gathers information to prepare and present reports on project topics.	7%	\$54,150- \$138,110	\$79,529	UCSD	n/a

Salary Range- Utilized www.bls.gov to collect data.

Career Video- Utilized www.careeronestop.org for video.

*- Data retrieved on www.payscale.com